those free services would simply have to be subsidized by other customers, which requires implicit subsidies.

7. RURAL CUSTOMERS WOULD PAY HIGHER TOLL RATES THAN URBAN CUSTOMERS

The DeGraba proposal acknowledges that it will result in higher charges to customers in high cost areas than in urban areas:

> A shift to COBAK may result in some shift in costs among specific groups of customers, such as raising slightly the cost of customers in high cost areas. (Paragraph 125, DeGraba)

The DeGraba proposal gives no reason to believe that this shift would be only a ".slight" shift. Higher rates for toll service for rural, high cost customers than for urban customers is not acceptable. Section 254(g) of the Telecommunications Act of 1996 (TA96) requires that the toll rates charged to rural customers be no higher than the toll rates charged to urban customers:

> The rates charged by providers of interexchange telecommunications services to subscribers in rural and high cost areas shall be no higher than the rates charged by such providers to its subscribers in urban areas.

Both the DeGraba and Atkinson-Barnekov proposals have the effect of increasing the costs for interexchange toll service to customers in high cost areas, thereby making their rates higher than the costs that customers in urban areas pay. One reason that the rates for rural customers would be higher than for urban customers under the Staff proposals is that the rural customers would be required to pay the costs caused by the IXCs' decisions as to where to locate the POPs. The IXCs tend to locate the POPs in urban areas. Because of where the IXCs choose to locate the POPs, it might be a very

short distance from an urban customer's premise to the IXC's POP, but it might be a long distance from a rural customer's premise to the IXC's POP.

Under the current rules, the rural customers are not harmed by the IXC's decision to locate the POPs further away from rural customers than they do from urban customers, because the IXCs pay access charges for the costs incurred to get from the end users to the IXC's POP. Therefore, under current rules, if an IXC decides to locate a POP a considerable distance away from rural customers, it is the IXC that pays the cost caused by that IXC decision, not the rural customers. However, under the DeGraba proposal, the rural customers would be directly billed for the cost of the originating access needed to get to the IXC's POP. Under the DeGraba proposal, if an IXC chose to locate a POP one mile away from a customer, then that customer would be responsible for paying the LEC access charges to cover that one mile distance. However, if the IXC chose to locate its POP 30 miles away from a rural customer, then the rural customer would be responsible for paying for all costs to transport that call from the customer premises to the IXC's POP that is 30 miles away. Under the DeGraba proposal, it is the rural customer, not the IXC, that would bear the access cost caused by the IXC's decision as to where to locate the POP. The Atkinson-Barnekov proposal has similar problems. It would charge the end users all costs on their LEC's network up to the point of "interconnection."

8. CHARGING CUSTOMERS TO RECEIVE CALLS

8.a. These proposals send the wrong "price signal."

Standard economic theory is that the efficient use of resources will be obtained if the price to a customer properly reflects the resources that would be used if that service is provided. With such a proper "price signal," the customer will only choose to purchase

the service if the benefit to the customer is greater than the cost of the resources required to provide this service.[11] This results in economic efficiency.

In order for this principle to work, two conditions must exist: (1) the price must reasonably reflect the resources that will be used if the service is provided, and (2) the customer making the purchase decision must be aware of the benefit of the service that they would receive.

However, the two Staff proposals would abandon these principles by (1) establishing prices (such as the free service to "carriers", see Attachment A) that do not reflect the cost of the resource being used, and (2) requiring customers who do not know of the benefit of the service to make the purchase decision. Under both Staff proposals, customers receiving a call would be charged for receiving the call, but they would not know the "benefit" of the incoming call until after they had decided to accept (purchase) the call.

8.b. The receiving customer cannot make an economically efficient decision because they do not have the information as to the benefit to be received before answering the call.

The originating customer is the only customer that is in the position to make the efficient decision. The originating customer knows what the content of the call will be, and therefore knows the benefit of the call. If that customer is also presented with a price that properly reflects the cost of the call, then the originating customer has the information to make an economically efficient decision. If the benefit from the call is not worth the price, they will not make the call. If the benefit exceeds the price, the customer

[11] Of course, other considerations are also involved. For example, common costs must be recovered in order to avoid companies from going bankrupt. Therefore, the price generally properly includes some recovery of common costs.

will make the call. The current practice of having the originating customer pay for the call is designed to result in efficient decision making.

However, under Staffs proposals, the customer that receives the call would be forced to decide whether to receive the call or not. That customer would be presented with a price; however, they would not know the content, and therefore the benefit, of the call. Since they do not know the benefit, they are not in the position to make an economically efficient decision. If they decide to answer a call, and it was a telemarketer, that would generally have been a wasted call, and an inefficient use of resources.

The present concept is much more likely to lead to efficient decision making than the proposed concepts. Under the present concept, the originating customer is presented with the price. Since the customer placing the call knows the value of the call, they can rationally decide whether that call is or is not worth the price. Under Staffs proposals, the customer receiving the call would have to make at least part of the purchase decision, but they cannot do so efficiently since they do not know the benefit of the incoming call until after they have answered it. The Staff proposals create economic inefficiency

8.c. The calling customer would also make uneconomic decisions, because their price would not reflect the full cost of the call.

A corollary to the above problem is that under Staffs proposals, the calling customer would also make uneconomic decisions. Under Staffs proposals, the receiving customer would be paying part of the cost caused by that call, and therefore the price charged to the originating customer would be less than the full cost that would be caused by that call. This is an improper price signal. **As** a result, customers would place calls

where the benefit of the call to them was less than the total cost caused by that call, thereby wasting resources. This is harmful to the economy, and is inefficient.

Another practical impact of this inefficiency is that it would stimulate inefficient telemarketer calling. Only a small percent of telemarketer calls are successful. Therefore, when deciding to telemarket a product, the product sold must be profitable enough to cover all of the cost incurred to telemarket that product, including the cost of the numerous telephone calls that are required in order to obtain one sale. If the price of the telephone calls to the telemarketer reflects the full cost that would be incurred, and the benefit to the telemarketer is not great enough to cover those costs, then the telemarketer will not sell that product through telemarketing. However, if the price presented to a telemarketer does not reflect the full cost (which is what would occur under Staffs proposals), then the telemarketer would telemarket products or make calls where the benefit even to the telemarketer is less than the actual cost of the calls.

8.d. Both Staff proposals would require the receiving end user to implicitly subsidize the traffic sensitive costs that are caused by telemarketers.

Under these Staff proposals, the rates charged to telemarketers would not cover the full cost of the traffic sensitive costs that the telemarketers caused by placing traffic on the network. The customer that receives the calls would be forced to support a portion of the costs of those calls from telemarketers. This would require those receiving customers to subsidize the traffic sensitive costs that are caused by the telemarketers who are placing these calls. In the vast majority of cases, telemarketing calls are undesired by the receiving party. Generally only a few percent of customers receiving such telemarketing calls buy or otherwise express interest in the product offered. For the vast

majority of customers, telemarketing calls are simply an undesirable interruption. Subsidizing the telemarketer caused usage cost would be an incentive for telemarketers to further increase their subsidized usage of the network.

9. CHARGING CUSTOMERS TO RECEIVE CALLS WILL CREATE UNDESIRABLE SIDE EFFECTS.

As previously discussed, the receiving customer does not have the information needed to make an economically efficient decision. Only the calling customer knows the benefit of the call, as discussed in Part 7.

9.a. Requiring customers to pay to receive calls would make customers reluctant to accept calls, which would decrease the usefulness of the network.

Have you ever wondered why there are no or few cellular telephone books, but virtually every wireline telephone company publishes a telephone book? The reason is that cellular customers generally must pay for receiving calls. Therefore, many cellular customers do not want their cellular phone number made available to the public.

9.b. Most telephone numbers would no longer be publicly available.

If wireline customers were forced to pay to receive calls, then it is reasonable to expect that the wireline telephone books would either disappear or have greatly reduced listings. Likewise, many customers would not want their telephone numbers published in any Internet telephone directories, or available from the operators. Forcing customers to pay to receive calls would result in more unlisted numbers, and would greatly reduce the usefulness of the nationwide network as a public network.

9.c. Customers would turn off their phones.

Cellular customers are generally charged to receive calls. Because of this, many cellular customers turn their phones off when not placing calls, in order to avoid receiving (and therefore being forced to pay for), unwanted calls. Because of this, four times as many calls are placed from cellular phones than are received by cellular phones.

> That ends up discouraging them from giving out their wireless phone number. … the typical profile for U.S. cellular usage is about **80%** outbound calls, 20% inbound,… (Page 37, America's Network, "The Keys to PCS Profitability", April 1, 1997)

Quite simply, cellular customers turn off their phones because they are charged to receive calls. This has not significantly degraded the use of the network, only because wireline customers are not charged to receive calls, and therefore are available to receive calls. However, if wireline service was priced as cellular is (with a customer paying to receive the calls), then the wireline customers would also be reluctant to receive calls. **As** a result, most calls simply would not go through because the receiving party would have their phones turned off or would not accept them. This would decrease the usefulness of the network.

If wireline customers are charged to receive the calls, then undoubtedly telephones would become available with "off' switches on them. Wireline customers would make a call, and then turn their phones off to avoid incurring unwanted "receive" charges, just as many cellular customers now do.

9.d. Customers would turn off or eliminate their answering machines.

Under these Staff proposals, customers would pay to receive calls, and therefore they would have to pay even if their answering machine answered an unwanted call.

Therefore, many customers would disconnect, turn off, or discard their answering machines to avoid unwanted charges. This would make it more difficult to communicate.

10. IN MANY CASES, THE CUSTOMER RECEIVING A CALL MAY NOT RECEIVE A BENEFIT FROM THAT CALL.

Many calls do not have a benefit to the receiving party. **A** key example of this is calls from telemarketers. Under these Staff proposals, not only would the calls from telemarketers interrupt the receiving customer, but in addition the receiving customer would have to pay for a portion of the cost of those unwanted calls. The DeGraba proposal claims that telemarketing is a "small fraction of telephone traffic." However, no evidence of that is provided. Telemarketers can place huge volumes. Telemarketers typically utilize each of their lines several hours per day placing calls. Many of them have automated machines that dial numbers while their sales people are talking to other customers who have already answered. When a customer answers a call, the machines automatically switch those lines to a salesperson. Typically, these machines dial more numbers than the telemarketer has salespeople, to allow for those that do not answer, are busy, etc. In addition, it must be remembered that Staffs proposal would stimulate telemarketing activity, because the telemarketers will be allowed to place calls below the true cost of those calls. This occurs because the receiving customer would also pay a portion of the cost of those calls. In addition, it is inherent fairness to cause people to pay even when they receive prank, annoying, or harassing calls.

There are examples of some customers, primarily businesses, who do wish to receive calls from other parties. The current tariff arrangements allow such customers the

opportunity to do so by subscribing to 800 (or 888) service. However, such businesses are a special circumstance. They are selling products, and therefore the cost of receiving the calls is part of the cost of selling those products. Normally, a sales call is of short duration. For example, an airline selling a $1,000 ticket can easily afford to pay the cost of receiving a call in order to make that sale. However, no change in the present structure is needed to make such services available to customers who do wish to pay to receive calls, such services are already available. The Staff proposals essentially take away the option of not paying to receive calls. All customers would essentially be forced to have service that was somewhat similar to an 800 number service. Under Staffs proposals, the only way to avoid these "receiving" charges is to do what many cellular customers do, which is to limit the availability of their telephone number, turn their phones off, make their number unpublished, or otherwise make themselves unavailable for receiving calls.

10.a. The significant "setup" cost would be incurred even if the receiving customer quickly hung: up.

The DeGraba proposal argues that a receiving customer could hang up once they realized the call was of little or no benefit. Unfortunately, a major portion of the traffic sensitive cost of a call is for the "setup" of the call. Equipment is required to set up a call that is not required to continue the call.[12] The cost to "setup" call is incurred regardless of whether the call lasts ten seconds or ten minutes. The "setup" is one of the most expensive traffic sensitive parts of a call. If a call is received by a network, that network

[12] For example, from the digits dialed one must identify where the call should be sent, and must identify a route where the switching equipment and interoffice facilities to connect the call. In addition, data for billing must be recorded. Information pertaining to the calling number for Caller ID, Call Return, or Call Trace purposes must be identified retained, and processed, etc.

has to incur those setup costs, even if the call lasts only a few seconds. When the receiving LEC's traffic sensitive costs are billed to the receiving end users, those end users will support a significant cost for receiving those unwanted calls, even if those calls last only a few seconds.

10.b. Caller ID

DeGraba argues that perhaps with Caller ID, customers could identify the benefit of the call before deciding to answer. (Paragraph 118, DeGraba) There are several problems with this argument. Customers with Caller ID look at the Caller ID number, and if they do not recognize the number, they frequently will let the call be answered by their answering machine. However, if they had to pay to receive the call, even that would still cost them. If the answering machine answers the call, that call was "received," and the customers would have to pay for it. In short, even customers with Caller ID would pay "received" charges, regardless of whether they personally answered the call or let their answering machine answer it. In addition, Caller ID service generally costs several dollars per month.

With Caller ID, the receiving party would know the telephone number and listing name of the originating telephone line, but they still would not know what the subject matter of the call was. In addition, they might refuse a call from someone they knew, if the caller was calling from a different phone (i.e. from a neighbor's, work, or payphone).

11. THE STAFF PROPOSALS ARE ECONOMICALLY INEFFICIENT.

These proposals are economically inefficient for several reasons:

(1) Providing unlimited free service to certain classifications of customers ("carriers"), as discussed in Part 1 above, and as shown on Attachment A, creates

inefficiency by providing the wrong "price signal." Resources are required to provide calls. When a price is free, which results in several instances under Staffs proposals, that price does not reflect the cost of resources actually utilized, and therefore sends an inefficient price signal.

(2) The provision of the free services under Staffs proposals would require implicit subsidies from other customers, as discussed in Part 1 above, and as shown on Attachment A. These implicit subsidies are economically inefficient.

(3) As previously discussed, Staffs proposals would eliminate any end-to-end oversight by any company. Therefore, no company would have incentive to achieve end-to-end efficiency for a call. This is discussed in more detail in Part 2.h.

(4) Under the Staffs proposals, three different companies would bill for the same call. This is economically inefficient. This is discussed in more detail in Part 2.c. above.

(5) The customer receiving the call does not know the benefit that would be derived from the call until after they answer it. Therefore, that customer is not in the position to make the economic efficient decision as discussed in Part 8.b.

12. REGULATORS WOULD STILL HAVE TO REGULATE ACCESS AND TRANSPORT RATES-IN ADDITION, THEY WOULD HAVE TO DEAL WITH NEW PROBLEMS RELATING TO DEMARCATION AND NEWLY CREATED IMPLICIT SUBSIDIES.

The DeGraba proposal states:

> COBAK eliminates the need for regulators to *set* prices for termination. (Paragraph 90)

However, in the detailed discussion, the DeGraba proposal explains that this statement would be true only if there were no "dominant" carriers. Since there are dominant carriers, DeGraba acknowledges that regulation in both the access and transport charges would be required under the DeGraba proposal.

> Thus, it appears appropriate to extend rate regulation of incumbent LECs, where the LEC already is regulated, to the recovery of these costs, while it appears unnecessary to regulate the rates of carriers whose end-user rates are not currently subject to regulation. (Paragraph 124, DeGraba)

And,

> If, however, the only provider of transport facilities is the incumbent LEC, then there is cause for concern, because the incumbent LEC may have an incentive to charge high prices for transport in order to deter entry. In such a case, it will be necessary to regulate the price that incumbent LECs charge for transport facilities, at least until competition renders such regulation unnecessary. (Paragraph 121, DeGraba)

The Atkinson-Barnekov proposal also acknowledges that until there is full competition (which does not now exist), the certain transport rates would still have to be regulated. (Paragraph 71, Atkinson-Barnekov) Of course, if all services were competitive everywhere, the regulators would not need to regulate rates, but that would be true even without the DeGraba or Atkinson-Barnekov proposals.

As long as there is significant monopoly power, the fact that the access services would be billed to end users instead of IXCs does not absolve the regulators from the responsibility of seeing that those charges for access services are reasonable. The end users are as deserving of protection from unreasonable access charges as are the IXCs.

13. THE ATKINSON-BARNEKOV AND DEGRABA PROPOSALS ARE NOT "LARGELY SELF-ADMINISTRATING."

On page ii of the Executive Summary of the Atkinson-Barnekov proposal, it is stated:

> The rule proposed here is a largely self-administering scheme that relies primarily on market mechanisms.

This is not correct. As discussed in Part 12 above, it would still be necessary for regulators to regulate both the transport rates and access charges, much as they do today. In addition, it would also be necessary for the regulators to deal with the new regulatory responsibilities caused by the lack of any IXC (or LEC for local service) having end-to-end responsibility. The regulators would now have to provide the first level of oversight of the network end-to-end. In addition, the new issues created by the need to establish and update demarcation points between all carriers would be a huge, new regulatory burden that does not now exist. (See Items 2.e.) Finally, the cross-subsidies required to support the provision of free service to other carriers would create new problems that the regulators would have to deal with repeatedly. (See Part 1 and Attachment A) The adoption of the Staff proposals would create huge, new arbitrage incentives that the regulators would have to continually address and attempt to resolve. (Attachment A)

14. THE DEGRABA AND ATKINSON-BARNEKOV PROPOSALS WOULD NOT ELIMINATE MONOPOLY POWER.

Another claimed advantage of the DeGraba proposal is that it "will eliminate, or significantly reduce, the terminating access monopoly problem." (Paragraph 24, NPRM) This "monopoly" problem would not be eliminated or significantly reduced by either Staff proposal. The simple fact is that in most areas, the ability to connect traffic to and

from a premise is virtually a monopoly service. For most customers, especially residential customers, there is only one company that has a loop to the premise. The company that has that loop is the only company that can provide access service to and from the premises. That monopoly power will still exist regardless of whether the DeGraba, Atkinson-Barnekov, or some similar proposal is adopted. The only difference is that currently it is the IXCs that must deal with the fact that this access service is essentially a monopoly service. The DeGraba and Atkinson-Barnekov proposals would shift that onto the end user. The monopoly power would not be eliminated, only the party paying the access charges to the monopoly service provider would change.

15. THESE STAFF PROPOSALS WOULD NOT "AVOID" THE PROBLEM OF COMMON COST ALLOCATION ENTIRELY-INSTEAD THEY UNREASONABLY ALLOCATE ZERO PERCENT OF COMMON COSTS TO SOME SERVICES, AND 100% TO THE REMAINING SERVICES.

The Atkinson-Barnekov proposal asserts that it "avoids the problems of common cost allocation entirely." (Paragraph 29, NPRM). In fact, this proposal does include common cost allocations, but they are unreasonable, unsupported, and unjustified common cost allocations. For example, Footnote *57* of Atkinson-Barnekov acknowledges that interconnection services would utilize the switch. But for no valid reason, Atkinson-Barnekov proposes that zero percent of the "common costs" of the switch should be recovered from those interconnection services. Recovering no portion of the "common costs" of the switch from the interconnection services that use that switch would require that 100% of those switch "common costs" be recovered from other services that also utilize that switch. This is an unjust, unreasonable, and unsupported allocation proposal. The Atkinson-Barnekov proposal presents no reasonable

justification for allocating 100% of the common costs to other services, and zero percent of the common costs to the interconnection services. Those switch common costs do have to be recovered. There is no reason that the interconnection services should not support a reasonable share of the common costs of the switching equipment which they, along with other services, utilize.

Likewise, the other common costs of the companies that provide switching or transport facilities are also costs that would have to be recovered. For example, these companies undoubtedly have executives, attorneys, accountants who prepare income tax returns, and similar common costs. There is no valid reason that the interconnection services provided by that company should be allocated zero percent of those common costs.

15.a. Section 254(k) of TA 96 reauires reasonable allocation of common costs.

The Atkinson-Barnekov proposal proposes to under-allocate common costs to interconnection services (an allocation of zero). That would have the effect of over-allocating common cost recovery to the remaining services. Since it is likely that some of the other services would be "universal services," an over-allocation of common costs to universal services would be in violation of Section 254(k) of TA96. Section 254(k) requires that only a "reasonable" allocation of joint and common costs can be made to the universal services.

> Section 254(k)--SUBSIDY OF COMPETITIVE SERVICES PROHIBITED.--A telecommunications carrier may not use services that are not competitive to subsidize services that are subject to competition. The Commission, with respect to interstate services, and the States, with respect to intrastate services, shall establish any necessary cost allocation rules, accounting safeguards, and guidelines to ensure that services included in the definition of universal service bear no more than a reasonable share of the joint and common costs of facilities used to provide those services.

In fact, the "zero" common cost recovery that the Atkinson-Barnekov proposal proposes is not what occurs in competitive markets. Standard economic theory does not hold that prices in a competitive market will generally equal incremental cost. Instead, standard economic theory holds that prices in a competitive market will cover the total cost of an efficient firm, which includes both the incremental and common costs. If prices did not recover the common costs, even efficient firms would go bankrupt. In fact, the FCC in its Interconnection Order found that prices should be based on the TELRIC of the service, plus a reasonable share of the joint and common costs. The FCC's Interconnection Order states:

> The Commission concludes that the prices that new entrants pay for interconnection and unbundled elements should be based on the local telephone companies Total Service Long Run Incremental Cost of a particular network element, which the Commission calls "Total Element Long-Run Incremental Cost" (TELRIC), plus a reasonable share of forward-looking joint and common costs.[13]

16. IT IS NOT NECESSARY TO ADOPT THE DEGRABA OR ATKINSON-BARNEKOV PROPOSALS TO ELIMINATE THE INTERSTATE CCLC, IT HAS ALREADY BEEN VIRTUALLY ELIMINATED.

The DeGraba proposal states that it would eliminate the carrier common line charges (CCLC).

> …the IXC, under COBAK, will pay no originating access charges at all to the calling party's local carrier, and it will pay no local switching or carrier-common-line charge to the called party's local carrier. (Paragraph 42)

However, the interstate CCLC has already been effectively eliminated.[14]

The Atkinson-Barnekov proposal states:

[13] Paragraph 29, FCC Interconnection Order, FCC 96-325

> This makes most network costs, particularly loop costs, common costs to be allocated among various services … because this cost includes an allocation of common costs the calling party's network ends up paying a share of the common cost of the called party's network. (Paragraph 9)

Both documents repeatedly claim that the loop and other non-traffic sensitive (NTS) costs are recovered in per minute access charges to the IXCs. (Paragraph **39,** NPRM; Paragraph 4, page 2 of de Graba) However, significant interstate loop and NTS central office equipment (COE) costs are not being recovered in the traffic sensitive interstate access charges under the current FCC Rules. The FCC, in its CALLS Order, has established the recovery of the interstate loop costs virtually entirely from the subscriber line charge (SLC, also sometimes referred to as the end user common line (EUCL) charge), which is billed to the end users. In addition, the FCC also splits the cost of the switching equipment between the traffic sensitive and NTS COE costs. The interstate NTS COE costs of the switching equipment are **part** of the "common line" basket that is billed in the EUCL charge to the end users. The costs that are being billed in the traffic sensitive local switching access rates are traffic sensitive costs. The NTS costs have already been identified and are billed as fixed costs.

Both documents claim that the current traffic sensitive access charges are "above cost access charges." (Paragraphs 9, 17, and **18,** de Graba) However, the FCC recently adopted the CALLS proposal which alleges determined traffic sensitive charges that were reasonable and cost based. Therefore, if CALLS establishes traffic sensitive costs that are reasonable and cost-based, it is not clear what alleged problem is being addressed, and on what basis the Staff claims that the current traffic sensitive access charges are improperly above cost.

[14] The FCC commenced a phase-out of the CCLC in FCC Docket No. 97-1**58,** and the interstate CCLC has

16.a. Local Rates

The Staff makes several references to flat rate charges for local service. (Paragraphs 77, 78, and 81, DeGraba) First of all, the local rates are under the jurisdiction of the state commissions, not the FCC. **A** number of state commissions allow optional flat rate service for residential customers, but do not allow it for business customers. For example, in 36 out of the 95 cities in the FCC's Reference Book of Rates, Price Indexes, and Expenditures for Telephone Service, optional flat rate service was available to residential customers, but not available to business customers.[15] In addition, state commissions frequently do consider the level of usage in setting the flat rates. For example, in those areas where flat rates are available to business customers, the PBX trunk rate is generally much higher than the single line business flat rate charge because the average usage on a PBX trunk is higher than the average usage on a business line.'' Charging for local usage using flat rates is not providing local usage for free.

17. THE ATKINSON-BARNEKOV "FULLY PROVISIONED NETWORKS" DOES NOT REPRESENT REAL WORLD, EFFICIENT FACILITIES COST

Regarding the Atkinson-Barnekov proposal, the NPRM states:

> The second underlying assumption is that the incremental costs of interconnection involve primarily capacity costs that should be recovered through flat charges. Accepting this latter assumption eliminates the need for traffic-sensitive interconnection charges. (Paragraph 28, NPRM)

---

been virtually eliminated.

FCC Reference Book of Rates, Price Indexes, and Expenditures for Telephone Service dated June, 1999, Tables 1.1 and 1.3.

[16] FCC Reference Book of Rates, Price Indexes, and Expenditures for Telephone Service dated June, 1999, Tables 1.10 and 1.19.

> Atkinson-Barnekov develop their analysis in the context of 'fully-provisioned networks'--i.e., networks that have sufficient capacity to allow their subscribers to make and receive all calls as they wish. (Paragraph 26, NPRM)

The "fully provisioned networks" that were primarily used in the Atkinson-Barnekov analysis are not economically efficient, and are not in any way related to the networks actually used to provide telephone service. The Atkinson-Barnekov proposal developed its assumption that there were little or no traffic sensitive interconnection costs primarily by using two network designs: a "mesh" network and a "linear" network. Both of these networks are unrealistic and inefficient networks that have little or no relationship to how a service is actually and efficiently provided. Under the hypothetical "mesh" network, if there were 5,000 customers to be connected, then every premise would have 5,000 lines coming from that premise going to every other premise.

According to paragraph 24 of the Atkinson-Barnekov proposal, the number of links required is $(n^2 - n/2)$. For an exchange containing 5,000 customer lines, 24,997,500 links (loops) would be required.[17] Such a network would be hugely expensive. Even if each link/loop cost only $10 per month, the monthly cost would be almost $250 million" to serve these 5,000 customers, or almost $50,000 per customer per month. This "mesh" network is hugely inefficient, and is not realistic.

In reality, in an exchange with 5,000 customers, a telephone company actually uses only 5,000 active links (loops). They run one loop from each customer premise to the central office. When one customer wants to talk to another customer, the switch in the central office connects the calling customer's loop to the called customer's loop. Only 5,000 active loops are used, not 25 million, as is assumed in the "mesh" network.

[17] $((5000)^2 - 5000/2) = 24,997,500$ links.
[18] 24,997,500 lines x $1 0 per month = $249,975,000 per month.

The "mesh' network used in this Staff analysis includes "no switching capability at all." (Paragraph 23, Atkinson-Barnekov) The hypothetical "mesh" network avoids all switching (traffic sensitive) costs by pretending that the customers are the switch. The customer wishing to place a call would walk around their house, which contained 5,000 different jacks, and plug into the one jack that provided a direct connection to the desired customer. This is one of the absurd networks that the Atkinson-Barnekov proposal used as a basis for its claim that there are no (or little) traffic sensitive switching costs. Of course, that is not how a service is effectively provided. The switch at the central office makes the connections, not the customer.

The other hypothetical network design that the Atkinson-Barnekov proposal utilized is the "linear" network. The linear network also assumes an absurd number of links (loops or interoffice capacity) and "some" switching. (Footnote 38, Atkinson-Barnekov) In order to connect 5,000 subscribers, the fictional "linear" network would require 6,250,000 links/loops.[19] This is an absurd number. In the real world, a company serving 5,000 lines uses 5,000 active loops connected to a central office that contains switching equipment. The linear network also greatly overstates the number of links needed. It creates a fictitious network that understates the true traffic sensitive switching costs.

The network design almost universally used to actually provide telephone service is the "star network." However, the "star" network is only mentioned in a footnote in the Atkinson-Barnekov proposal, and is not included in any significant way in that analysis. (Footnote 65, Atkinson-Barnekov) In fact, Atkinson/Barnekov acknowledges the "star" network employs "more switching, fewer links" than the networks on which they based

their analysis. (Footnote 65, Atkinson-Barnekov) Therefore, the real world star network has more traffic sensitive costs than the Atkinson-Barnekov analysis assumes.

The conclusions based upon Atkinson-Barnekov's hypothetical "fully provisioned networks" are meaningless. These designs are extremely inefficient and not used in the real world to any significant extent. In the real world, and in an efficient network design, traffic sensitive switching equipment and traffic sensitive interoffice equipment are used. The traffic sensitive costs increase as the level of traffic increases. These costs are traffic sensitive costs and are appropriately recovered in traffic sensitive rates.

17.a The interconnection costs cannot be determined simply by knowing the number of customers ("n")

Atkinson-Barnekov presents formulas which they claim can be used to calculate the interconnection costs based solely on knowing the number of customers. ("n") This does not work. The sizing of the interconnection facilities, and therefore their costs, depends largely on the level of traffic. You cannot determine the level of traffic simply by knowing the number of customers, because all customers are not equal. For example, a telemarketer will generate far more traffic than the average residential customer will generate. In addition, most calls are to locations that are within a few miles of the calling party: You are far more likely to call a pharmacy that is located in your town than a pharmacy located 1,000 miles away. In addition, even if the number of "links" was known, that still does not tell you the cost, because the cost of links varies. As used in the Atkinson-Barnekov proposal, "links" could include just a loop, or a link could be a loop plus interoffice facilities several miles long, etc. Therefore, the cost "per link"

[19] $(n^2/4)$ (Footnote 44, Atkinson-Barnekov proposal), $((5{,}000)^2/4) = 6{,}250{,}000$ links.

would also vary. **A** formula that includes only the number of customers cannot be used to determine, or even reasonably estimate, the interconnection costs.

18. RECOVERING INTERSTATE TOLL TRAFFIC SENSITIVE RATES IN MANDATORY FLAT RATES WOULD REQUIRE LOW USE CUSTOMERS TO SUBSIDIZE HIGH USE CUSTOMERS.

These two Staff proposals and the NPRM indicate they are considering recovering interstate traffic sensitive costs from mandatory flat rates billed to end users.

> …while it is possible that, in moving to a bill-and-keep regime, carriers would simply charge existing traffic-sensitive termination charges to their end-user customers, it appears equally likely, or more likely, that carriers might modify the rate structure by moving to flat-rated charges. This likewise would result in an increase in flat-rated end-user charges.[20]

Such a proposal would force low use toll subscribers to subsidize high use toll subscribers. There is a large variation in the level of interstate usage among customers. In any given month, **38%** of the residential customers place no interLATA interstate calls.[21] At the other extreme, large users, such as telemarketers, can place thousands of minutes per month of interstate toll traffic per line, as discussed elsewhere.[22] To charge mandatory flat rates for interstate toll usage would require those customers with little or no usage to subsidize high toll users. The low users would be required to pay rates that greatly exceeded the traffic sensitive costs which they caused. Flat rate service would also mean the high users would not pay rates that cover all of the traffic sensitive costs that the high users cause. The customer producing large volumes of traffic would

[20] Paragraph 123, NPRM.
[21] Reply Comments of the Consumer Federation of America, Consumers' Union, and the Texas Office of Public Utility Counsel, page 6, CC Docket No. 99-249, dated October 20, 1999.
[22] Telemarketers frequently prefer to use interstate toll as opposed to locating in the same state, because in many states the interstate toll rates are lower than the intrastate toll rates.

underpay. They also would pay the same flat rate that others paid, and therefore would not pay rates that reflected the resource consumption they had caused.

Included in this cross subsidy would be the effective requirement that the low use customers subsidize telemarketers, which are high volume users. There is no valid public good that can be derived from forcing low use customers to subsidize telemarketers or other high use customers.

18.a. Mandatory flat rate charges to recover interstate traffic sensitive costs would harm affordability and universal service.

The proposed mandatory flat rate interstate usage charge would presumably be a charge that customers would be required to pay in order to receive just basic exchange service, just as the SLC/EUCL charge is. Therefore, imposing a mandatory flat rate to recover the average interstate traffic sensitive costs would effectively increase the cost for a customer to obtain even just basic exchange service. This would effectively increase the price of basic exchange service, and harm affordability and universal service. Such an unjustified increase in price is not in the public interest. As previously discussed, **38%** of the residential customers place no interstate calls in a given month. Therefore, they would be paying a rate, but receiving no benefit. They would be subsidizing the high use toll customers, including telemarketers.

18.b. The Internet flat rate charges are *optional* charges—Many residential customers do not pay them.

The Staff papers rely on the fact that flat rate charges are a common form of charging by ISPs. Staffs reliance on the Internet example is totally misguided. The Internet flat rate charges are optional charges. The only people that pay the flat rate

Internet charges are those that have chosen to pay them. They will only pay them if they expect to receive enough value in return for making that payment. Since the Internet flat rate charges are optional, there is nothing that forces low or non-users to pay these charges. Many people do not pay the Internet flat rate charges, including people who do not use the Internet. People can choose to pay zero, a measured rate, or a flat rate for Internet service. The non-users are not forced to subsidize the high users. However, Staffs proposal would impose a mandatory flat rate charge on everyone, not just those who have so elected. This would place a flat rate charge to recover interstate traffic sensitive costs on even those users who make little or no use of interstate services. As discussed above, a significant portion of the population has little interest in placing or receiving interstate calls, but under Staffs proposals, these customers would be forced to pay for interstate traffic sensitive costs in order to subsidize the high use customers, including telemarketers. Not only is this unjust, but it is economically inefficient. High use customers would not be paying rates that reflect the true cost that they are causing. Therefore, they would make inefficient pricing decisions, all as previously discussed.

19. CONCLUSION

The Maryland Office of the People's Counsel strongly recommends that the FCC reject these Staff proposals. These proposals create undue discrimination in which customers considered to be "carriers" use certain LEC's facilities for free, whereas the customers considered to be "end users" would pay for those facilities, as shown on Attachment **A.** This would create arbitrage and require implicit subsidies. The responsibility for each call would be fragmented, with several carriers having responsibility for different segments. No company would have overall responsibility for

the call. Regulators would inherit the end-to-end responsibility. By charging ISPs to "receive" traffic, these proposals would destroy the Internet for the general public. Charging customers to receive traffic would make many customers remove their telephone numbers from public directories, turn off their answering machines, and/or refuse to take calls. Under these proposals, rural customers would pay higher toll rates than urban customers do. Regulation of access and transport rates would still be needed, and monopoly power would still exist under these proposals. These proposals are economically inefficient. These proposals mis-allocate common costs by recovering none of the common costs from interconnection services. The networks used in the Atkinson-Barnekov proposal have nothing to do with the real world networks, and are terribly inefficient. It is not possible to calculate the interconnection costs from a formula that uses only the number of customers ("n"). Recovering interstate toll traffic sensitive costs in mandatory flat rates would require low use customers to subsidize high use customers. We recommend that these Staff proposals be rejected. We strongly recommend that the FCC review Attachment A carefully to understand the subsidies and arbitrage incentives that result from either Staff proposal.

Respectfully submitted,

Michael J. Travieso /tve

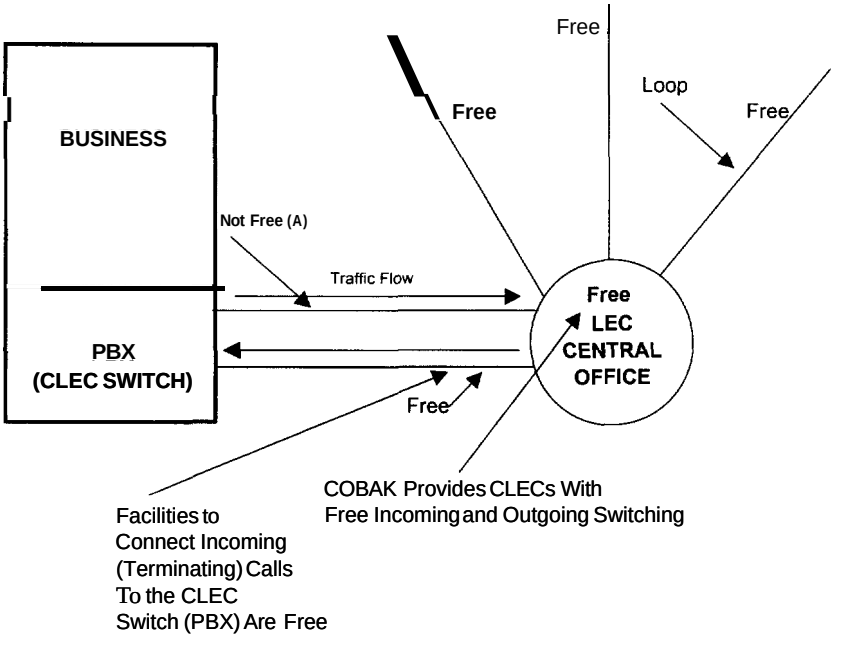
Michael J. Travieso
People's Counsel
Maryland Office of People's Counsel
6 St. Paul Street, Suite 2102
Baltimore, Maryland 21202
(410) 767-8150

COBAK (DE GRABA)

CUSTOMERS CAN ARBITRAGE COBAK BY MAKING THEMSELVES A "CLEC"
(LOCAL INTERCONNECTION EXAMPLE)

CUSTOMERS COULD ARBITRAGE COBAK TO RECEIVE FREE LOCAL SWITCHING FOR BOTH INCOMING AND OUTGOING TRAFFIC, AND TO RECEIVE SOME OF THE FACILITIES BETWEEN THEMSELVES AND THE LECs' CENTRAL OFFICE FOR FREE, BY MAKING THEMSELVES A "CLEC"

CHARGES TO THE BUSINESS AS A CLEC:



A) The **ONLY** LEC service or facility the "CLEC" pays for is the facility between the CLEC and the LEC central office used for originating traffic.

DeGraba (COBAK) Rules:

"Rule 1: No carrier may recover any costs of its customers' local access facilities from an interconnecting carrier." (Paragraph **24,** DeGraba) "Local access facilities" consist of the loop serving the customers' premises and the central office switches that serve the customers' loops. (Paragraph 23, DeGraba) This rule means no part of the LEC's central office switching costs may be billed to the CLEC. That central office switch handles all of the traffic to and from the CLEC at no charge.

"Rule 2: For calls transversing two networks, the calling party's network is responsible for the cost of transporting the call to the called party's central office." (Paragraph **24,** DeGraba) For incoming traffic to the CLEC, the "central office" is the PBX, and therefore the LEC is responsible for transport of the incoming calls all the way to that central office (PBX switch). For calls outgoing from the business, the CLEC is responsible to transport those calls to the CLEC's central office. As shown above, this is the only LEC service or facility that the CLEC would pay for.

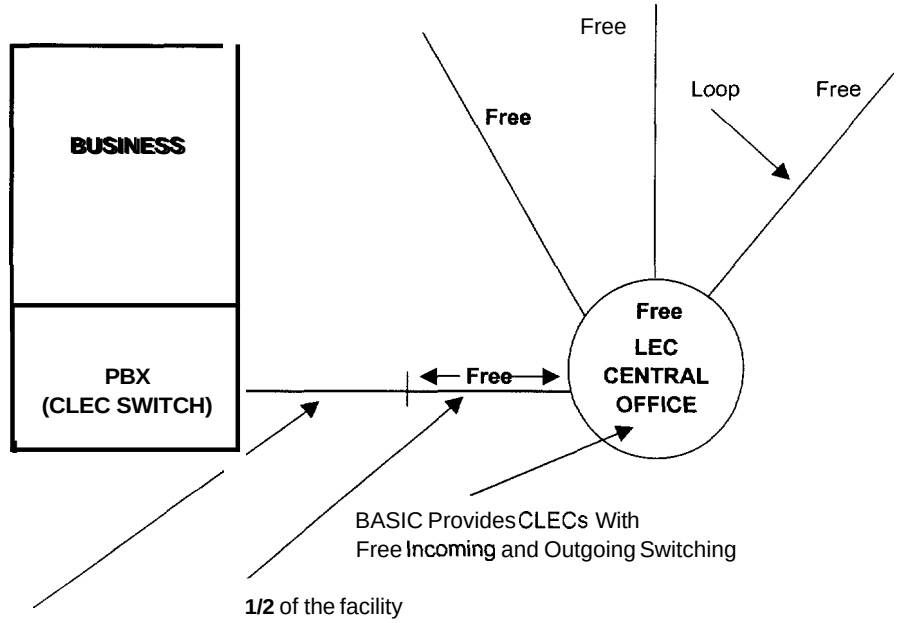
Note: This diagram is for local service in an exchange (local calling area) service by one LEC central office. Similar arbitrage opportunities exist under COBAK and BASIC for more complex networks as well.

A (ATKINSON/BARNEKOV)

CUSTOMERS CAN ARBITRAGE "BASIC" TO RECEIVE FREE LOCAL SWITCHING FOR BOTH INCOMING AND OUTGOING TRAFFIC AND TO RECEIVE SOME OF THE FACILITIES BETWEEN THEMSELVES AND THE LECS' CENTRAL OFFICE FOR FREE BY MAKING THEMSELVES A "CLEC"

(LOCAL INTERCONNECTION EXAMPLE)

CHARGES TO THE BUSINESS AS A CLEC:



The **only** LEC service or facility the CLEC pays for is 1/2 of the costs of the facilities between the "CLEC" (business) and the LEC Central Office

1/2 of the facility between the "CLEC" (business) and the LEC Central Office is Free for the CLEC

Atkinson-Barnekov **(BASIC) Rules:**

Rule 1: "That the costs incremental to interconnections should be split equally between the two interconnecting networks." (Paragraph **40,** Atkinson-Barnekov) This results in splitting the cost of the facility between the CLEC switch and the central office as shown above.

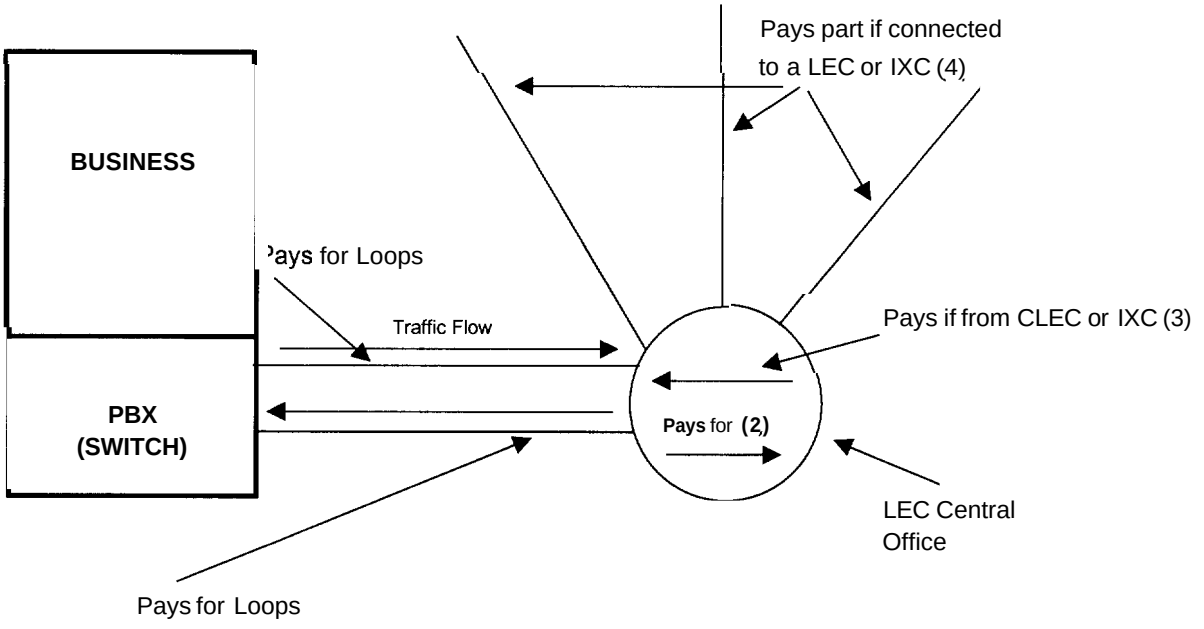
Rule 2: "…each network collect all remaining costs (those not incremental to interconnection) from its own subscribers." (Paragraph **40,** Atkinson-Barnekov) This results in the LEC collecting all of its central office switching costs from the LEC's end user and none of that cost from the "CLEC", as shown above.

Note: This diagram is for local service in an exchange (local calling area) service by one LEC central office. Similar arbitrage opportunities exist under COBAK and BASIC for more complex networks as well.

LEC FACILITIES A CUSTOMER PAYS FOR IF THE CUSTOMER IS AN END USER

(LOCAL INTERCONNECTION EXAMPLE)

CHARGES TO THE CUSTOMER AS AN END USER:



1. As an END USER, the customer pays for all loops between itself and the central office.

2. As an END USER, the customer pays for the switching costs of the outgoing traffic.

3. If incoming traffic originates with another end user, that other end user will pay the central office switching costs, and therefore the receiving end user will not pay them. However, under COBAK or BASIC if the incoming traffic connected from an IXC, CLEC or other LEC, that carrier will no pay for the central office switching costs, and therefore the LEC's END USERS (including the end user shown above) will have to pay these usage costs.

4. If the connecting facility is a loop to another end user, that other end user will pay for the loop. However, under COBAK or BASIC if the facility connects to an IXC, CLEC, or other LEC that IXC, CLEC, or other LEC will only pay par of the cost *of* that facility (as discussed on pages 1 and 2 of this attachment). Therefore, the end user shown above (along with other end users) would have to support part *of* the costs of these interconnection facilities. (Items "4" on diagram above).

Note: This diagram is for local service in an exchange (local calling area) service by one LEC central office. Similar arbitrage opportunities exist under COBAK and BASIC for more complex networks as well.

CERTIFICATE OF SERVICE

I HEREBY CERTIFY that a copy of the Maryland Office of People's Counsel's Comments will be furnished to parties on the attached list.

Paul Moon
Common Carrier Bureau
445 12th Street, S.W.
Room 3-C423
Washington, D.C. 20554

Jane Jackson
Common Carrier Bureau
445 12th Street, S.W.
Room 5-A225
Washington, D.C. 20554

International Transcription Service, Inc.
445 12th Street, S.W.
Room CY-B402
Washington, D.C. 20554

Wanda Harris
Common Carrier Bureau
445 12th Street, S.W.
Room 5-A452
Washington, D.C. 20554

Michael J. Travieso/mc

Michael J. Travieso, People's Counsel
August 20,2001